Amendments to the Specification:

Please add the following new paragraph on Page 1, above line 1:

--CROSS REFERENCE TO RELATED APPLICATIONS

Applicants claim priority under 35 U.S.C. §119 of German Application No. 103 34 590.6 filed July 28, 2003. Applicants also claim priority under 35 U.S.C. §365 of PCT/EP2004/008322 filed July 24, 2004. The international application under PCT article 21(2) was not published in English.--

Page 9, line 8, to page 11, last line, please amend this paragraph to read:

--The effort and expense for carrying out the method described are relatively slight. In particular, there is the possibility of retrofitting an existing, conventional hydrogen plant in such a manner that the method according to the invention can be operated with it. Fig. 2 shows a conventional hydrogen plant that has been retrofitted according to the invention. The already existing plant components are shown with solid lines, while the components added within the scope of retrofitting are shown with broken lines. The conventional hydrogen plant has a reformer 4′ equipped with a combustion chamber 3′, for catalytic splitting of gaseous

hydrocarbons with steam. Behind this, a high-temperature conversion reactor 5′ for catalytic conversion of carbon monoxide to carbon dioxide with steam is disposed. This is followed by a pressure swing adsorption system 11′ for the isolation of hydrogen 12′ from the converted gas stream 8′, with a connected gas line 17′ to the combustion chamber 3′ for the purpose of firing the reformer 4′ with a waste gas stream 13′ exiting from the adsorption system 11′. Within the scope of retrofitting, the capacity of the reformation step was increased by approximately 20% by means of a pre-reformer 4′′ that precedes the reformer 4′, as well as a post-reformer 4′″ that follows the reformer 4′. If necessary, it might also be sufficient to provide only one of the two additional reformers 4′′, 4′′′. The high-temperature conversion reactor 5′, which generally works at temperatures between 360 and 500°C, was supplemented with a subsequent low-temperature conversion reactor 5′′ that works in the range of approximately 210 to 270°C, in order to achieve conversion of the carbon monoxide to carbon dioxide that is as complete as possible. Alternatively to this, the existing high-temperature conversion reactor 5′ can also be replaced with a conversion reactor that works at medium temperature. A gas compressor 16′ for compressing the gas stream 6′, as well as a gas scrubber 7′ for separating the <u>carbon dioxide 18'</u> that was formed were provided between the conversion stage and the pressure swing adsorption system 11′, whereby in the exemplary embodiment, the carbon dioxide 18′ that

was extracted in the gas scrubber 7′ is directly passed to a technical application. Between the scrubber 7′ and the pressure swing adsorption system 11′, an additional device 19′ is provided for returning part 14′ of the hydrogen-rich gas stream 10′ that leaves the gas scrubber into the fuel chamber 3′, 3′′, 3′′′ of the reformers 4′, 4′′, 4′′′. Subsequently, an adjustment of the existing reformer 4′ to the combustion takes place, as does waste heat utilization of the fuel that is now rich in hydrogen. The existing gas line 20 for feeding fuel gases that contain hydrocarbons into the combustion chamber 3′ of the reformer 4′ is no longer utilized. The representation in Fig. 2 shows that a conventional hydrogen plant can be retrofitted, with relatively little effort and expense, in such a manner that the method according to the invention can be operated with it. In this way, the attractiveness of the method according to the invention is further increased.--

IN THE ABSTRACT:

Please add the Abstract attached hereto on a separate page.